

**REMARKS**

The present application contains claims 1-28. Claims 1 and 2 are amended and claims 20-28 are new. Claims 1, 2, 11 and 12 stand rejected and claims 3-10 and 13-19 are objected to.

Claims 1, 2, 11 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Spivey et al. (U.S. Patent 5,886,353). Applicants respectfully traverse the rejection and submit that the Spivey patent does not provide a *prima facie* case for obviousness.

Applicants note a typographical error in claim 1 in which "processing circuits" was substituted on line 6 of claim 1 for "pixelated detectors." This error has been corrected in the present amendment.

The Examiner has identified element 188 in Fig. 15A as a "processing circuit 188" and thus identified reference 188 in Fig. 15A with the processing circuits of claim 1. Applicants respectfully disagree.

The Spivey patent itself identifies reference 188 as "transistor buffer amplifiers 188" at col. 13, lines 14-15. Furthermore, Spivey goes on to explain that the "ribbon cable 167 routes signals to *external circuitry* which amplifies the voltages from output lines 71 and converts the analog voltages to digital data via analog to digital converters." (Col. 13, lines 16-19.) Presumably, the digital signals are processed in the external circuitry.

Applicants submit that the Spivey reference teaches no more than the conventional structure in which signals are transferred from a circuit board on which the detectors are mounted to a different board on which the processing is carried out.

Claims 1 and 12 are thus seen to be *prima facie* unobvious in view of Spivey. As to claim 1, Spivey does not teach mounting both the detectors and the processing circuits on a same printed circuit board. As to claim 12, Spivey does not teach connecting the detectors and processing circuits via conductors of a printed circuit board. Rather, in Spivey, the connection is via ribbon cable 167.

Claims 20-28 are added to specifically claim the structure of Fig. 11. Claim 21 is not *prima facie* obvious in view of Spivey, since, while Spivey does indicate that the detectors are mounted on a circuit board and does not exclude that the external circuitry (including processing circuitry) could be mounted on a printed circuit, Spivey teaches that the two are connected by a ribbon cable. In present claim 20 the two printed circuit boards are connected together by attaching the two boards directly and not via a cable. In view of the perceived need

for keeping heat from the processing circuitry, the use of ribbon circuitry (as in Spivey) is the obvious solution to the problem.

Further to Examiner's objection to the Information Disclosure Statement filed by applicants on March 25, 2004, applicants attach a copy of the 2-page 1449 form along with copies of the foreign references and relevant English translations thereof.

Item 12 (CH 471 392) – attached is an English language Search Report citing this item.

Item 13 (DE 196 16 545) – corresponds to item 5, U.S. Patent No. 5,821,539.

An English language abstract is attached to item 15 (EP 0 527 373).

An English translation of item 16 (FR 2 705 791) is provided.

Applicants also attach a full English translation of item 21 (JP 05-333157).

Applicants respectfully request that items 12-22 listed on the 1449 forms be initialed by the Examiner in accordance with MPEP Section 609 to ensure that they appear on the face of the patent issuing on the present application.

Respectfully submitted,  
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